AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
	1 | 2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO.(If applicable)
0003	11-Jul-2003	W25PHS-3090-8556	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
US ARMY ENGINEER DISTRICT, PHILADELPHIA CONTRACTING DIVISION WANAMAKER BLDG, 100 PENN SQ EAST PHILADELPHIA PA 19107-3390	DACW61	**See Item 6**	

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
	X	9A. AMENDMENT OF SOLICITATION NO. DACW61-03-R-0019
	X	9B. DATED (SEE ITEM 11) 18-Jun-2003
		10A. MOD. OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE / FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[X] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer [X] is extended, [ ] is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) DESIGN, CONSTRUCT, TEST AND DELIVER A CRANE BARGE AND DECK CARGO BARGE

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

[ ] A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

[ ] B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).

[ ] C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

[ ] D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor [ ] is not, [ ] is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

THE DATE AND TIME SET FOR RECEIPT OF PROPOSALS IS EXTENDED TO JULY 24, 2003 AT 2:00 P.M., LOCAL TIME.

Section C, Description/Specifications/Statement of Work:

a. For CLIN 0001, pages numbered C-14, C-16, C-24, C-46, C-50, C-74, and C-103 are deleted in their entirety. Substitute therefor with the attached pages numbered C-14, C-16, C-24, C-46, C-50, C-74 and C-103 annotated Amendment 0003.

b. For CLIN 0001 pages numbered C-24a, C-24b, C-53a, and C-53b, attached, annotated Amendment 0003 are hereby incorporated.

c. For CLIN 0002, page C-27 is deleted in its entirety and substituted with the attached page numbered C-27 annotated Amendment 0003.

(continued on page 2)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 11-Jul-2003

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

d. Section J, Attachments: Page J-16, annotated Amendment 0003, with reference data, is hereby incorporated.

e. Offerors should indicate receipt of this Amendment on Standard Form 33, Solicitation, Offer, and Award, as Amendment 0003. Failure to acknowledge an Amendment may require rejection of the offer.

All other information remains the same.

C130 COMPARTMENT CAPACITIES

Tank capacity tables shall be provided for all ballast and consumables tanks.

Sounding tables in gallons per inch shall be provided for all tanks in their final configuration. The sounding tables shall be presented in tabular form with one tank per page on 8 1/2" x 11" paper using the GHS computer software. Each table shall include the identity of the tank (as labeled on the drawings), its location in the vessel and the center of gravity (longitudinally, vertical and transversely) of the fluid at each sounding level. The compartmentation definition files shall be submitted in electronic format with the sounding tables.

The minimum tank capacities shall be as follows:

- Fuel Oil Storage 7,500-gallons
- Fuel Oil Day 200-gallons
- Potable Water 2,000-gallons
- Oily Bilge 500-gallons
- Waste Oil 250-gallons
- Hydraulic Oil 250-gallone
- Lube Oil 275-gallons

Inage capacity sounding tables shall be provided for all tanks identified above. Tables shall note location of the sounding tube, and location and height of striker plate above the baseline and tank bottom.

C150 DAMAGED STABILITY

The vessel shall meet a one compartment damaged stability standard in the most critical transit loading condition where with any one compartment flooded, the vessel shall maintain positive righting arm and all parts of the hull above the margin line remain above the flooded waterline. The margin line shall be 3 inches below the main deck edge.

Damaged stability calculations shall show equilibrium water lines, curve of righting arm versus heel angle in 5-degree or less increments to capsize angle for each flooded compartment. The freeboard shall be reported at the four deck corners, and at each deck knuckle for each damaged condition.

The Contractor shall prepare a damaged stability analysis for the vessel during the Engineering Phase of this contract verifying compliance with this criterion. Any calculations showing a failure to meet this criteria shall be reported in a timely manner to the COR with recommendations for correction. The analysis shall be performed using the GHS computer software and all run files and macros used in calculating the damaged stability shall be submitted with the analysis in electronic format. The analysis shall be repeated using the lightship weight determined by the inclining experiment after completion of the vessel (prior to Final Acceptance).

The damaged stability calculations shall be presented in report form with a cover sheet complying with the drawing standards and including a drawing type title block. The report shall include a table of contents, summary, explanation of all assumptions and clear definition of origins and units used, and the finished calculations.

C. CALCULATIONS

The calculations shall be performed using the GHS computer software. Other proven (ABS and USCG accepted) Naval Architecture software may be used after notification to, and approval by, the Contracting Officer. All run files and macros used in the calculations shall be submitted with the analysis in electronic format. (Note: Section C125 requires the hydrostatics to be performed using the GHS computer software and the hull definition file (or *.gf file) to be provided in electronic format (on a 3.5 inch disk or CD ROM) with the hydrostatics submittal.)

The intact stability calculation shall be presented in report form with a cover sheet complying with drawing standards and including a drawing type title block (see contract Clause H13). The report shall include a table of contents, summary, explanation of all assumptions and clear definition of origins and units used and the finished calculations.

D. TRIM & STABILITY BOOKLET

The Contractor shall prepare a Trim and Stability booklet for the vessel during the Engineering Phase of the contract documenting compliance with the criteria. The booklet shall assist the Master in assessing the stability and anticipated inclinations of the vessel, by include the following:

- Instructions to the Master.
- Tank capacities.
- Hydrostatics data.
- Plots of maximum KG vs. Draft.
- Procedure for trim and stability calculations.
- Calculated loading conditions.

The Contractor shall verify that the vessel can achieve a 17-feet air draft in the following condition:

- Ballasted down.
- 10% consumables.
- Spuds stowed on deck.
- Material handler machine not on board.
- No special fixed ballast.

Thirty days prior to Final Inspection of the vessel, the Contractor shall provide a final Trim and Intact Stability Booklet for that vessel determining loading procedures to maintain a stable platform throughout the loading process. The lightship weight of the vessel shall be that determined from the Inclining Experiment.

C315 DECKHOUSE

The Contractor shall design and construct a steel deckhouse meeting the requirements of the ABS River Rules (Part 3, Section 6.17) as shown on the Contract drawings.

The Contractor shall develop a drain system for the house and welding shop top during the Final Design Phase.

C317 SERVICE STRUCTURES

A EXCAVATOR STOPS

Portable and fixed stops for the excavator in way of the crawler way curbs shall be provided. The forward portable stops shall be compact design with same width of crawler pad and height equal to excavator drive sprocket radius.

Provide and install enclosure plates on the top, aft sloping side and sides of the portable excavator stops to prevent the entrance of rocks and debris. The fit-up with the deck shall be as tight as possible.

B CRAWLER WAY CURBS

The crawler way curbs shall be provided as shown on the contract drawing for the crawler excavator width for the Caterpillar 375 MH. Approximately, a few inches of clearance shall be provided between the crawler pads and the curbing.

Four (4) deck mounted pad eyes for excavator fastening during transit shall be provided and installed in a suitable location.

C320 TANKS

A. GENERAL

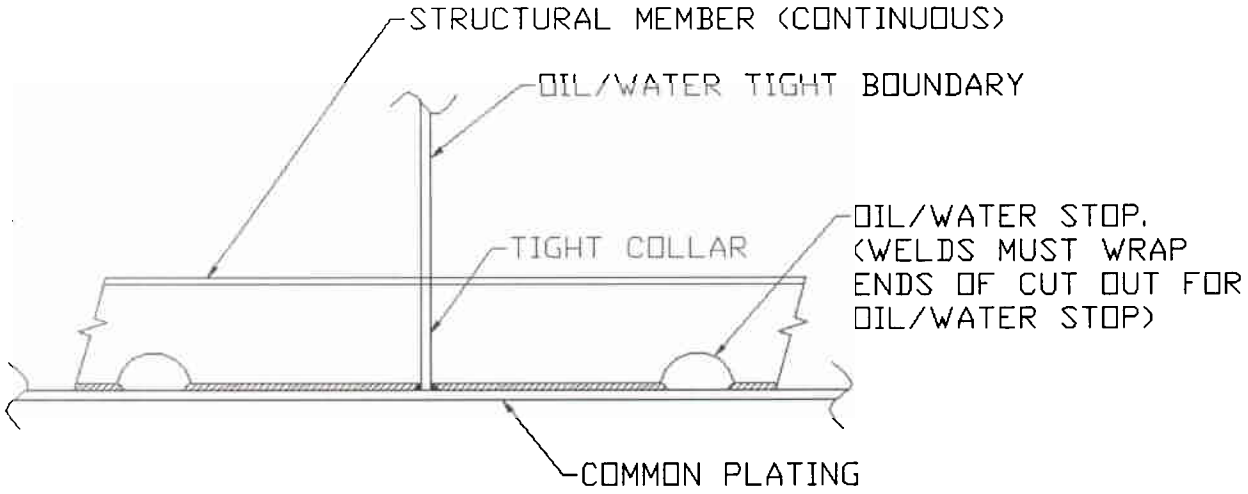
The vessel contains integral ballast tanks and independent consumable and storage tanks that shall be located in accordance with the contract drawings. The tanks are ballast, fuel oil storage, fuel oil day, slop oil (waste oil), oily bilge, lube oil, hydraulic oil and potable water tanks.

Tanks shall be complete with manholes, access ladders, filling connections, sounding tubes, tank level indicators, drains, vents and all necessary connecting piping, gauges and controls as required by the various clauses of this contract.

All tanks shall be of welded steel construction, except the potable water tank, which shall be polyethylene construction. The tanks shall be designed and constructed to meet the applicable ABS rules.

The bottoms of independent tanks shall be separated from the bottom shell. The fuel oil storage tank shall be raised 30-inches above the bottom shell at tank side. The potable water tank bottoms shall be a minimum of 24" above the bottom shell.

The Contractor shall install an oil/water stop for any structure passing through an oil-tight or watertight boundary of an integral tank, where applicable. The oil/water stop is installed to prevent liquid from transiting from the tank via the structural member passing through the tank and the common plate. The size and location of the oil/water stop shall be acceptable to ABS and shown on the structural and tank drawings. See Sketch #320A for typical oil/stop details.



MDC SKETCH #320A, (TYPICAL OIL/WATER STOP DETAIL)

B. DESCRIPTION OF WORK

1. Ballast Tanks

The integral ballast tanks shall be located as shown on the contract drawings.

Each ballast tank shall be fitted with hatches in accordance with Clause C415 and access ladders in accordance with Clause C427. Vents, sounds, and fills shall be in accordance with Clause C660.

2. Fuel Oil Tanks

The vessel shall be constructed with a fuel oil storage tank and a day tank in the locations shown on the contract drawings. All fuel oil tanks shall be isolated from the side shell and bottom plating.

The fuel oil tanks' plating and framing shall be designed to ABS scantlings for deep tank bulkheads, tank tops, and bottoms.

The fuel oil tanks shall be fitted with hatches in accordance with Clause C415 and access ladders in accordance with Clause C427, where applicable. Vents, sounds, and fills shall be in accordance with Clause C630.

3. Slop (Waste) Oil Tank & Oily Bilge Tank

The vessels shall be constructed with a slop (waste) oil tank and an oily bilge tank in the locations shown on the contract drawings. The tanks shall be constructed in the same manner as the main fuel oil tanks.

Each tank shall be fitted with hatches in accordance with Clause C415. Vents, sounds, and fills shall be in accordance with Clause C637 & C636.

4. Lube Oil Tank, & Hydraulic Oil Tank

The lube oil tank, gear oil tank, and hydraulic oil tank shall be located as shown on the contract drawings. The tanks shall be constructed isolated from the bottom plating.

Each tank shall be fitted with hatches in accordance with Clause C415. Vents, sounds, and fills shall be in accordance with Clause C635.

5. Potable Water Tank

The Potable Water tank shall be located as shown on the Contract drawings. The tank shall be manufactured to ASTM D1998-93 Standards and shall be one-piece, seamless, watertight polyethylene molded from 100% approved FDA materials. Pre-installed fittings shall include top inlet, lower outlet and 16" threaded man-way hatch with 5" vented inspection port.

Components and fittings shall be arranged and located to ensure convenient maintenance and repair. All maintenance components, e.g., filters, shall be readily accessible and removable without disconnecting the attached piping or dismounting the filter housing.

The breather opening into the reservoir shall have 10-micron filtration, as well as replaceable, cartridge-type desiccant air dryer to minimize condensation within the reservoir.

3. Controls

Each spud winch shall be remotely controlled from a central control station located within sight of all spud wells. Local (to the winch) controls shall also be provided. Winch controls shall be electro-hydraulic controls.

Independent controls of each spud winch shall be provided with ability to hoist two spuds simultaneously at full power and half speed or to hoist one spud at full power and maximum speed.

Audible and visual hydraulic fluid low level alarms shall be provided on the central control console.

Weather tight covers shall protect all controls in the weather. Covers shall be steel, hinged and lockable.

B. DECK WINCHES

The Contractor shall provide and install four (4) compact, individual single drum self-contained ~~hydraulic~~-electric deck mounted ~~mooring~~ connector winches similar to WW Paterson Company. Winches shall be located generally as shown on the Contract drawing.

The winches shall be provided with a 40-ton holding brake and a 5-HP motor. The winch drums shall be outfitted with ~176-feet of ¾-inch extra-improved plow steel wire rope with soft eye end attachment. Wire rope shall be 6x19 class EIPS for added strength.

Winches shall have the following features:

- NEMA 4 Dings brake.
- Machined alloy gearing.
- Electric self-adjusting spring-loaded brake.
- Mechanical locking dog for emergency use in case of electric brake failure.
- Heavy-duty roller chain and sprockets.
- Heavy-duty roller bearings and high strength phosphor bronze bearings.
- 230/460V-3 Phase-60Hz NEMA design D motor.
- Rope and gear guards protect wire rope and enclose gearing.
- Free spooling capability to rapidly payout slack wire.

Wire rope shall be provided with certification documents in accordance with the requirements of Section C580.

C500 SPECIAL FEATURES

C550 SPUDS

Three (3) heavy wall, ~~cylindrical~~ square section steel ~~pipe~~ spuds shall be provided ~~-~~ as shown on the Contract reference drawing. Spuds shall be 42-feet length overall.

Reinforced spud corners shall be provided ~~by continuously fillet welding heavy flange equal length angles to the steel pipe spud.~~

~~Steel pipe shall be at least XH type construction classification.~~

The point of the spud shall be reinforced with square bar stock welded to diaphragm plates.

Stops and lifting attachment shall be provided at the top of each spud.

The spuds shall be designed to withstand vessel storm survival wind and current conditions, which is 2-MPH current and 60-MPH wind speed.

Spud weight shall be minimized to reduce the size and cost of the hoisting system and required crawler machine capacity. Spud weight plus lifting collar and rigging shall be less than 22-kp.

For the purposes of vessel preliminary vessel loading condition calculations, the following weight and configuration data shall be used:

• Boom length	42'-6" pin center to pin center
• Stick length	31'-2" pin to pin
• Tail swing	13'-9"
• Upper chassis weight	48,740-pounds
• Boom	23,224-pounds
• Boom cylinders	3,310-pounds
• Stick	11,985-pounds
• Boom and stick lines	500-pounds
• Counterweight	30,803-pounds
• Carbody	27,300-pounds
• Track frames (2)	66,394-pounds
• 2.5 cubic yard clamshell bucket	7,600-pounds
• Total operating weight	219,856-pounds

REFER TO CONTRACT CLAUSE J05 FOR ADDITIONAL CRANE DATA AND LIFT CAPACITY RATINGS. THE FINAL DESIGN LOADING CONDITIONS SHALL BE BASED ON A REFINEMENT OF THE CENTERS OF THE ABOVE WEIGHTS

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F. HOT WATER HEATER

The winter-summer hook-up shall be such that water always flows through the tankless heater coils in the boiler. One branch line from the tankless heater in the heating boiler shall be used for a sea chest ice-melt connection, and one branch line shall supply hot water to the sinks and the shower in the Head and to the sinks in the Dayroom. The branch line supplying the sinks shall have a backflow preventer to protect against contamination from the sea chest line.

When the boiler is not operating, hot water shall be supplied by a 50-gallon, fast recovery, electric hot water heater.

G. POTABLE WATER TANK

The ~~1500~~2000-gallon potable water tank shall be made of FDA approved polyethylene. It shall be complete with filling, distribution, vent and drain connections, inspection/cleaning ports, level indicator and saddle as follows:

Liquid level indicator similar to a GEMS SureSite. The indicator shall be of all stainless steel construction and shall be suitable for potable water service. The gauge shall be calibrated to show tank levels at ¼ graduations.

1-inch drain with ball valve and pipe cap shall be installed on the tank to allow for the draining of the tank. The stripping connection shall be fitted at the lowest point of the tank.

A backflow-preventer shall be installed between the potable water tank and the pressure set.

H. POTABLE WATER FILL STATION

The Contractor shall provide and install a 1½-inch potable water fill and 2 inch vent for the potable water tank. The potable water filling station shall be located on the main deck on the forward bulkhead of the deckhouse.

At the filling station the fill line shall terminate with a brass screw cap fastened by a chain to an adjacent bulkhead or fixture in such a manner that the cap shall not touch the deck when hanging free. The filling connection shall be clearly marked by means of ½ - inch lettering (minimum), stamped on a non-corrosive label plate, or equivalent.

An enclosure shall be provided with a lockable hinged door with staples to hold it open. The door shall be provided with gaskets to prevent the intrusion of water.

Padlocks with three keys, similar to those manufactured by MASTER LOCK, shall be provided to lock the filling station enclosure.

C733 ELECTRICAL POWER PLANT

A. DIESEL GENERATOR SET REQUIREMENTS

The Contractor shall provide and install two diesel generator sets. The main diesel generator set shall be located below deck in Machinery Room 4P; the auxiliary generator set shall be in the Auxiliary Generator Room on the main deck.

The diesel generator sets shall be 4-cycle marine type, similar to a Caterpillar. The main diesel generator shall a continuous rating of 150-kW minimum at 0.8 power factor at 60 Hz and 1800 rpm. The auxiliary generator set shall have a continuous rating of ~~105~~150-kW minimum at 0.8 power factor at 60 Hz and 1800 rpm. The generators shall be set up to supply 480 volt AC, 3-phase, 3-wire, ungrounded, 60 Hz electrical power.

Each generator shall be equipped with an amortisseur winding and shall be capable of delivering 110 percent load for two hours without exceeding permissible limits of temperature rise. Each generator, along with its regulation and excitation systems shall be capable of supporting overload conditions as well as maintaining short circuit currents of such magnitude and duration as required to properly actuate selective tripping of downstream protective devices.

Each voltage regulator shall be a solid-state, volts-per-hertz voltage regulator capable of automatically maintaining constant rated generator voltage throughout the load range of the generator. Each voltage regulator shall be capable of maintaining steady state regulation within 1 percent of rated voltage from no load condition to 110 percent rated load condition and shall include a voltage adjusting rheostat with a plus and minus 10 percent adjustment range.

The voltage dip on each generator shall not exceed 25 percent while starting the largest motor on the vessel across the line with the main bus load at 30 percent capacity.

Each generator shall have a separate voltage regulator for mounting on the switchboard.

Each generator shall have a block heater for the engine and a space heater for the generator power from the 208Y/120VAC main panel.

The generators shall be capable of starting and running the operating load as detailed in the Clause C710. Each generator shall be sized to equal the next standard size generator which is greater than the largest load calculated in the Load Analysis per Clause C710B.

C499 BULKHEAD STORAGE

A. REFERENCE DRAWING

667-A499-01, BULKHEAD STORAGE

B. INTENT

The contractor shall develop a final design for storing bulkheads on the deck of the barge. A conceptual design was developed and is illustrated on the above reference drawing. Note that this arrangement is not symmetric about the centerline and that the longitudinal and transverse locations shown are required to ensure proper trim of the barge in its loaded condition. After delivery of the vessel, the Government intends to store two bulkheads on the deck in a longitudinal orientation. The bulkheads are not part of this contract and are shown for information purposes to permit the contractor to complete the final design.

C. TIE DOWN MECHANISM

The contractor shall further develop the details of a tie down mechanism, that complies with Detail 15-D ~~G-15~~ of Reference drawing 667-A499-01 ~~667-A298-01~~, to secure the bulkheads to the deck of the vessel. The mechanism shall be limited to the deck connection point. The nomenclature, quantity and location of the deck connection points shall be as shown on the Reference Drawing. Additional rigging such as cables, chains, shackles have been illustrated on the drawing for information purposes; but will not be delivered as part of this contract.

D. STORAGE PAD

The contractor shall develop the details for a structural pad to store each bulkhead on. The Reference Drawings includes a conceptual detail ~~(Detail G-12)~~, which the contractor shall develop into a final design. The top of the storage pad will be level to account for camber in the deck and allow for upright storage of bulkheads. Under-deck stiffening will be required in way foundations.

J05 EXCAVATOR DATA

For the purposes of vessel preliminary vessel loading condition calculations, the following data is made available. Refer to Contract Clause C599 for additional data and lift capacity ratings.

375 MH

Weights

	kg	lb
Operating Weight*	92 081	203,000
Upper and Carbody**	34 500	76,000
Counterweight	13 980	30,800
Track Roller Frame (each) with 30" flat shoes	14 605	32,200
55'0" (16.8 m) Pierce Front (estimated with cylinders)	13 730	30,250
68'0" (20.7 m) Front (with cylinders)	17 700	39,000

All weights shown are for machines equipped with 30" flat shoes.
*Estimated weight with 55' Pierce front.
**Stripped for shipment (no cab, carwalks or stairs).

Swing Mechanism

Two fixed-displacement, axial-piston motors power swing mechanism.

- Triple-planetary, double-reduction gear set drives pinion. Pinion is enclosed in grease bath.
- Automatic, oil-disc brake applies four seconds after swing control is released.

Swing Speed	5.7 rpm

Shipping Dimensions

	mm	ft
Shipping Height – cab tipped	3810	12'6"
Operating Height – to top of cab	5969	19'7"
Shipping Length – riser to counterweight	7772	25'6"
Track Width*	5588	18'4"
Track Length	6350	20'10"

*Requires removal of carwalks, walkways and ladder.

Hydraulic System

Two variable-displacement, axial-piston pumps power the boom, stick, jib and travel circuits. A third pump powers the swing circuit. One, single-section, gear-type pump powers the pilot circuit.

Main Implement System:		
Maximum flow	2 x 436 liters/min	2 x 115 gpm
Swing Pump	1 x 341 liters/min	1 x 90 gpm
Maximum pressure:		
Implements	31 350 kPa	4,550 psi
Travel	34 470 kPa	5,003 psi
Swing	27 477 kPa	3,988 psi
Rotate/Fan Pump:		
Maximum flow	59 liters/min	15.5 gpm
Maximum Pressure	17 225 kPa	2,500 psi
Auxiliary Pumps for Generator:		
Pump 1		
Maximum Flow	95 liters/min	25 gpm
Maximum Pressure	22 737 kPa	3,300 psi
Pump 2		
Maximum Flow	190 liters/min	50 gpm
Maximum Pressure	22 737 kPa	3,300 psi
Pilot System:		
Maximum Flow	45.5 liters/min	12 gpm
Maximum Pressure	3571 kPa	526 psi
Cylinders, Bore and Stroke:		
	mm	in.
Boom (2)	200 x 1967	7.8 x 77.4
Stick (1)*	200 x 1967	7.8 x 77.4
Stick (2)**	220 x 2262	8.7 x 89.1

*One stick cylinder on 55' front
**Two stick cylinders on 68' front

Refill Capacities

	liters	U.S. gallons
Fuel Tank	993	262
Cooling System	95	25
Lubrication:		
Engine Oil	64	17
Swing Drive (each)	14	3.6
Final Drives (each)	25	6.6
Hydraulic System (Includes tank)	997	263
Hydraulic Tank	781	206

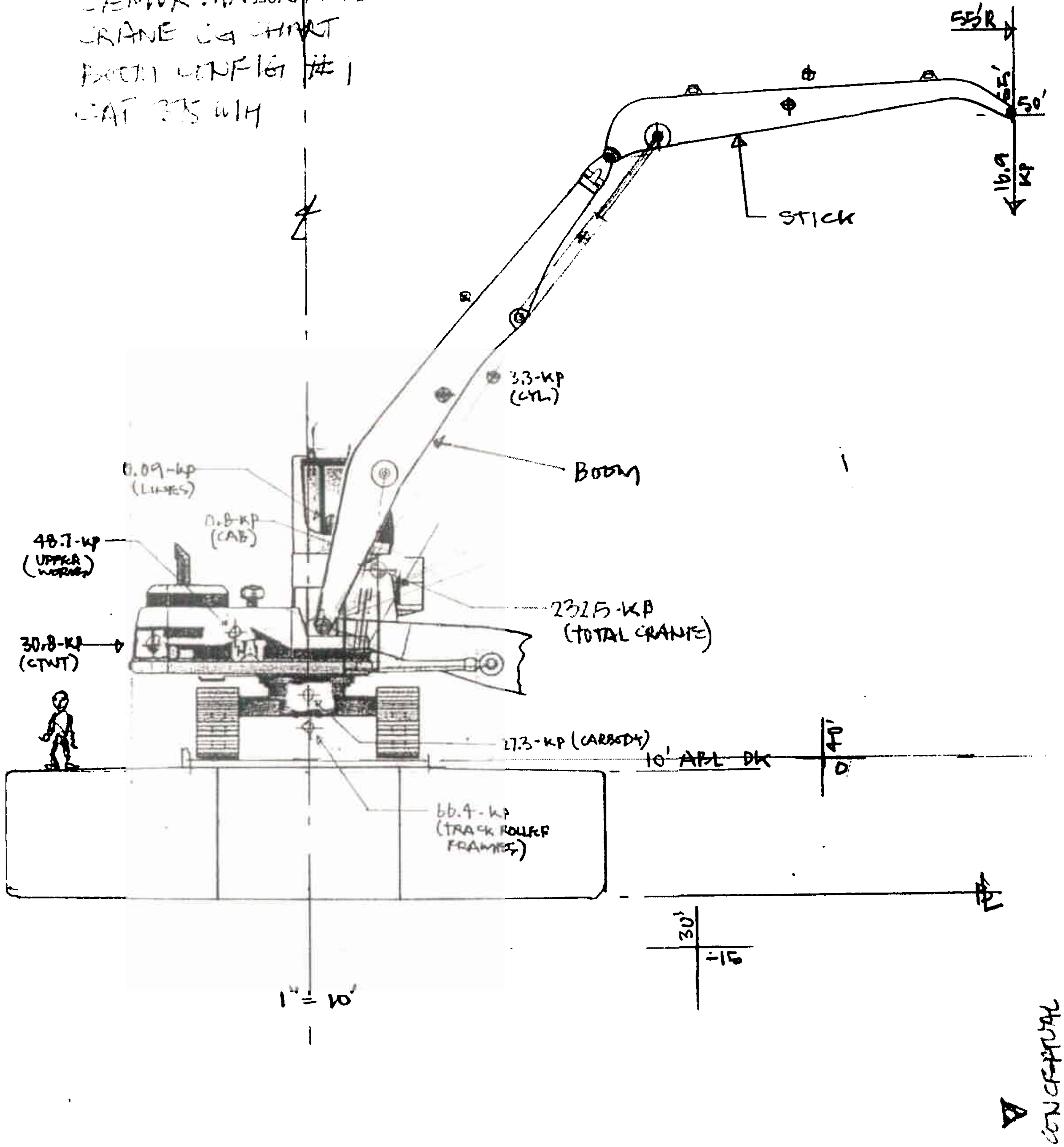
375 MH equipped with a 68 ft Caterpillar two-piece front

Reach		4.5 m 15 ft	6.0 m 20 ft	7.5 m 25 ft	9.0 m 30 ft	10.5 m 35 ft	12.0 m 40 ft	13.5 m 45 ft	15.0 m 50 ft	16.5 m 55 ft	18.0 m 60 ft	19.5 m 65 ft	21.0 m 70 ft	Max kg Max lb	Max m Max ft
Height															
15.0 m	kg									7.7				7.1	17.15
50.0 ft	lb								18.1	16.9				15.7	55.67
13.5 m	kg									7.7	7.2			6.9	18.14
45.0 ft	lb									16.9	16.8			15.4	59.07
12.0 m	kg								8.3	7.7	7.2			6.8	18.96
40.0 ft	lb								18.1	16.8	15.7			15.2	61.87
10.5 m	kg								8.4	7.7	7.2	6.7		6.6	19.62
35.0 ft	lb								18.3	16.9	15.7			14.8	64.16
9.0 m	kg								8.5	7.8	7.2	6.7		6.4	20.16
30.0 ft	lb							20.4	18.6	17.1	15.8	14.6		14.3	65.98
7.5 m	kg							9.6	8.7	7.9	7.3	6.7		6.3	20.57
25.0 ft	lb							20.9	18.9	17.3	15.9	14.6		14.0	67.38
6.0 m	kg					12.8	11.0	9.8	8.8	8.0	7.3	6.7		6.1	20.86
20.0 ft	lb					27.4	24.0	21.4	19.3	17.5	16.0	14.6		13.7	68.39
4.5 m	kg		24.1	18.8	15.4	13.1	11.4	10.0	9.0	8.1	7.4	6.7	6.0	6.0	21.04
15.0 ft	lb	63.9	52.4	40.8	33.6	28.5	24.8	21.9	19.5	17.7	16.1	14.6		13.4	69.01
3.0 m	kg		23.9	19.8	16.1	13.5	11.7	10.2	9.1	8.2	7.4	6.7	6.0	5.9	21.11
10.0 ft	lb		55.9	43.1	35.1	29.5	25.5	22.3	19.9	17.8	16.1	14.5		13.2	69.27
1.5 m	kg		14.8	20.4	16.5	13.8	11.9	10.4	9.2	8.2	7.4	6.6	5.8	5.8	21.06
5.0 ft	lb		34.3	44.4	36.0	30.2	25.9	22.6	20.0	17.9	16.0	14.3		12.9	69.16
Ground	kg		12.5	20.4	16.6	14.0	12.0	10.4	9.2	8.2	7.3	6.5		5.7	20.93
Line	lb		28.6	44.5	36.3	30.4	26.1	22.7	20.0	17.8	15.8	14.0		12.7	68.68
-1.5 m	kg		12.2	18.5	16.4	13.8	11.9	10.3	9.1	8.0	7.1	6.3		5.6	20.68
-5.0 ft	lb		27.6	42.3	35.8	30.2	25.9	22.5	19.8	17.5	15.4	13.5		12.4	67.83
-3.0 m	kg		12.5	17.4	15.9	13.5	11.6	10.1	8.9	7.8	6.9	5.9		5.4	20.31
-10.0 ft	lb	21.4	28.2	39.7	34.7	29.4	25.3	22.0	19.3	16.9	14.8	12.7		12.0	66.59
-4.5 m	kg	10.5	13.1	17.2	15.1	12.9	11.1	9.7	8.5	7.4	6.4	5.4		5.2	19.82
-15.0 ft	lb	23.6	29.4	38.8	32.8	28.1	24.3	21.1	18.4	16.1	13.9			11.6	64.93
-6.0 m	kg	11.4	13.7	16.1	13.9	12.0	10.5	9.1	7.9	6.9	5.8			4.9	19.20
-20.0 ft	lb	25.5	30.8	35.2	30.3	26.2	22.7	19.8	17.2	14.8	12.4			11.0	62.83
-7.5 m	kg		14.4	14.2	12.4	10.9	9.5	8.3	7.1	6.1	5.0			4.6	18.43
-25.0 ft	lb		32.3	30.8	27.0	23.6	20.5	17.8	15.4	13.0	10.3			10.2	60.24
-9.0 m	kg			11.8	10.6	9.4	8.2	7.1	6.1	5.0				4.1	17.50
-30.0 ft	lb			25.5	22.9	20.2	17.7	15.2	12.9	10.3				9.1	57.09
-10.5 m	kg					7.5	6.6	5.6	4.6						
-35.0 ft	lb						13.9	11.8							

Specifications shown indicate load is limited by hydraulic capacity. Lift capacity ratings are based on SAE standard J1097 and are hydraulically limited over both front and side. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% tipping capacity.

ARNNG

CEMVD/2009
CEMVR MAZON REPL.
CRANE CG CHART
BOOM CONFIG #1
CAT 375 WH



6-16-03
JHB

CONCEPT/PRELIM./CONTR./DETAIL

Boom CONFIGURATION #1: 55 R & 50 HEIGHT

Form Approved
O.M.B. No. 41-R2726

Form MA-36G

U. S. DEPARTMENT OF COMMERCE
MARITIME ADMINISTRATION

WORK SHEET - WEIGHT CALCULATIONS

Group No. 115 | Design 2519 | Date 6-10-13 | By AB | Sheet

CAT 370 MH WEIGHT EST.

Item	Quantity	Unit Wt.	Weight	Vert. Arm	Vert. Mom.	TRV. Arm	Long. Mom.	Remarks
			Kp					
TRACK FRAMES			66.4	13.5		0		
CAR BODY			27.3	16.2		0		
UPPER CHASSIS			48.7	21		-4		
COUNTERWEIGHT			30.8	19.8		-11.5		
CAB			0.8	27.3		2.5		
ST.			17.4	17.2		-3.14		
BOOM			23.3	39.2		10.7		
BOOM CYLINDERS			3.3	40.6		14.5		
BOOM LINE			0.09	29.4		1.7		
BOOM LINE			0.19	47		12.2		
STICK			12	61.4		37.5		
STICK LINE			0.19	63.8		39		
CAPACITY 16.9/.87			19.43	61.0		55		
			232.5	25.75		5.50		
TIPPING LEVER						1.92		

COMM-DC 40284